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510(K) SUMMARY

In accordance with 21 CFR 807.87(h) and (21 CFR 807.92) the 510(k) Summary for the GRINDCARE MEASURE device is provided below.

Device Common Name: Dental Muscle Monitoring Device

Device Proprietary Name: GRINDCARE MEASURE

Submitter: Medotech A/S
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Biologics Consulting Group, Inc.
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Date Summary Prepared: March 1, 2012

Classification Regulation: 21 CFR 890.1375 Diagnostic electromyography, Class II

Panel: Dental

Product Code: KZM: Dental Muscle Monitoring Device

Predicate Devices: GRINDCARE - K092675
SLP, Inc Bitestrip - K030869

Indication for Use:

The GRINDCARE MEASURE device is indicated to aid in the evaluation of nocturnal bruxism by measuring the temporalis muscle EMG activity during sleep.

Device Description:

GRINDCARE MEASURE is a portable electromyographic (EMG) monitoring device. The device consists of the recorder, a tri-polar electrode and a docking station. The electrode is placed on the forehead with three integrated electrodes in close connection to the temporalis muscle by means of a double-adhesive patch incorporating three conductive gelpads and

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connected to the recorder. The device records EMG activity and processes the signal to detect a particular activity (tooth grinding/clenching). It uses EMG to sense contraction of the temporalis muscle that is associated with bruxing events. The EMG events are logged and stored on the recorder. This data can be transferred to a healthcare professional's PC for assessment of the user's bruxism.

Performance Data:

Device testing was performed and the device was shown to meet its design specifications.

As stated in the previous 510(k) (K092675) device performance has been tested and meets the following standards which also apply to the GRINDCARE MEASURE:

- IEC 60601-1: Medical Electrical Equipment - Part 1: General Requirements for Safety
- IEC 60601-1-2: Medical Electrical Equipment - Part 1-2: General Requirements for Safety - Collateral Standard: Electromagnetic Compatibility - Requirements and Tests
- IEC 60601-2-40: Medical Electrical Equipment - Part 2-40: Particular Requirements for the Safety of Electromyographs and Evoked Response Equipment

RF function of the GRINDCARE MEASURE meets requirements of FCC CFR 47 Part 15, Subpart C.

Conclusions drawn from testing:

The performance testing demonstrates that GRINDCARE MEASURE is safe and has acceptable performance for the proposed intended use and indication for use.

Substantial Equivalence:

The GRINDCARE MEASURE device is intended to aid in the evaluation of nocturnal bruxism by measuring the temporalis muscle EMG activity during sleep. It uses EMG to sense contraction of the temporalis muscle that is associated with bruxing events.

GRINDCARE MEASURE is substantially equivalent to the following predicate devices:

- GRINDCARE (K092675)
- SLP, Inc Bitestrip (K030869)

| 510(k) Number | TBD | K092675 | K030869 |
|---------------|-------------------|-----------|-----------|
| Manufacturer | Medotech | Medotech | SLP Inc |
| Device Name | GRINDCARE MEASURE | GRINDCARE | BiteStrip |

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|--|---|---|---|
| 510(k) Number | TBD | K092675 | K030869 |
| Manufacturer | Medotech | Medotech | SLP Inc |
| Device Name | GRINDCARE MEASURE | GRINDCARE | BiteStrip |
| Regulation | 890.1375 | 890.1375, 882.5050 | 890.1375 |
| Product Code | KZM | KZM, HCC | KZM (muscle monitoring device, dental) |
| Indication for Use | The GRINDCARE MEASURE device is indicated to aid in the evaluation of nocturnal bruxism by measuring the temporalis muscle EMG activity during sleep. | The Grindcare device is indicated to aid in the evaluation and management of nocturnal bruxism by reducing the temporalis muscle EMG activity during sleep. | The BiteStrip is generally indicated for use by orofacial pain professionals or dentists to aid in the evaluation and management of nocturnal masticatory muscles activity disorders, which may be related to the patient's bruxism, temporomandibular disorder (TMD) or other oral function disorders during sleep. |
| BASIC UNIT CHARACTERISTICS | | | |
| Power Source | Lithium-ion rechargeable battery | Lithium-ion rechargeable battery | Lithium battery |
| Number of Output Channels | N/A | 1 | N/A |
| Software Firmware/ Micro-processor Control? | Yes | Yes | Yes |



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Room - WO66-G609
Silver Spring, MD 20993-0002

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Medotech A/S
C/O Ms. Calley Herzog
Consultant
Biologics Consulting Group, Incorporated
13417 Quivas Street
Westminster, Colorado 80234

Re: K113677
Trade/Device Name: GRINDCARE MEASURE
Regulation Number: 21 CFR 890.1375
Regulation Name: Diagnostic Electromyograph
Regulatory Class: II
Product Code: KZM
Dated: March 7, 2012
Received: March 8, 2012

Dear Ms. Herzog:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'ADW for', is written above the typed name.

Anthony D. Watson, B.S., M.S., M.B.A.
Director
Division of Anesthesiology, General Hospital,
Infection Control and Dental Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

K1136771071**4.0 Indications for Use Statement****510(k) Number (if known):** _____**Device Name:** GRINDCARE MEASURE**Indications For Use:**

The GRINDCARE MEASURE device is indicated to aid in the evaluation of nocturnal bruxism by measuring the temporalis muscle EMG activity during sleep.

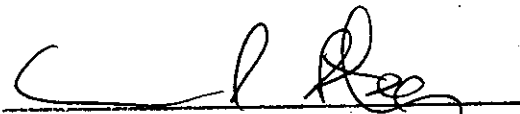
Prescription Use X
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use _____
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)



Division Sign-Off)

Division of Anesthesiology, General Hospital
Infection Control, Dental Devices

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